



Winter 2008

# VTM Connection

Virginia's Transportation Modeling Newsletter

## National Household Travel Survey Effort Begins in Virginia and Nationwide

### NHTS



After several months of planning, the National Household Travel Survey (NHTS) effort began in Virginia and nationwide on March 17th and will continue for a one year period. The purpose of the NHTS survey is to provide trends on America's daily travel behavior. NHTS captures both daily and seasonal variation as well as long distance travel.

The NHTS is conducted every 5 to 8 years by the Federal Highway Administration (FHWA) with past surveys occurring in 1969, 1977, 1983, 1990, 1995, and 2001. NHTS is the United States' flagship travel survey and serves as the nation's inventory of daily and long-distance travel. The survey has provided the nation with authoritative data on travel by all modes of transportation, for all travel purposes, and all travel distances. The NHTS series provide vital data on American passenger travel and can be used to examine the relationship among social and demographic change, land development patterns, and transportation. The series is an essential tool for those seriously interested in understanding travel behavior and transportation planning issues.

The NHTS data is intended to address a number of issues in transportation, ranging in scope from the impacts of gas tax changes to trip generation rates needed to calibrate travel demand models. Along the way there are a number of issues that relate to how we, as a nation, are evolving - the changing roles of women and men within the family structure, the growth and increased mobility of the older driver population, the continued increase in vehicle ownership, and the continued decentralization of our metropolitan areas.

## VDOT TRAVEL MODELING CONTACTS

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## KEY TRAVEL MODELING WEBSITES

### Virginia Travel Modeling Program

<http://www.virginiadot.org/vtm>

### Hampton Roads PDC Travel Modeling

[http://www.hrpdc.org/TRANS/TRANS\\_Tra  
velDemand.asp](http://www.hrpdc.org/TRANS/TRANS_Tra velDemand.asp)

### Metropolitan Washington COG Travel Modeling

[http://www.mwcog.org/transportation/activ  
ities/models/](http://www.mwcog.org/transportation/activities/models/)

### FHWA Travel Model Improvement Program (TMIP)

<http://tmip.fhwa.dot.gov/>

**JUYIN CHEN**

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Ju-yin is the younger of two children and was born in Tainan where her maternal grandparents lived. She was raised in Kaohsiung, a city of similar size as Richmond but its population is about 1.51 million. It

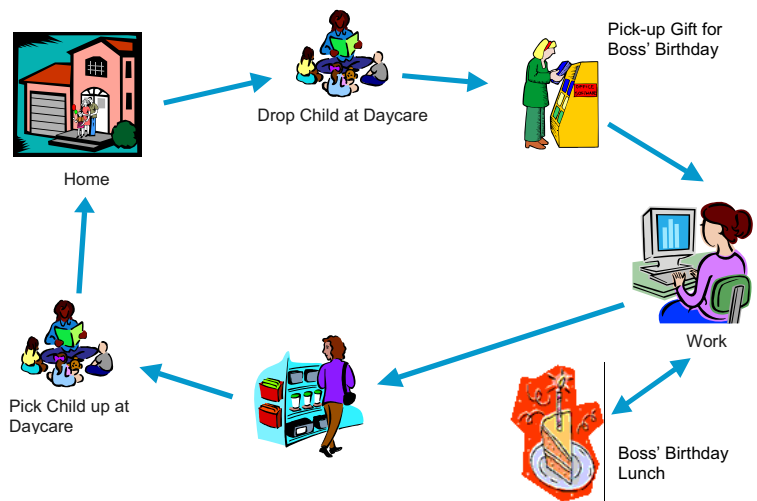


is located on the southwestern coast of Taiwan.

Kaohsiung is the second largest city in Taiwan and known as the "Harbor Capital" as it is the sixth largest container port in the world.

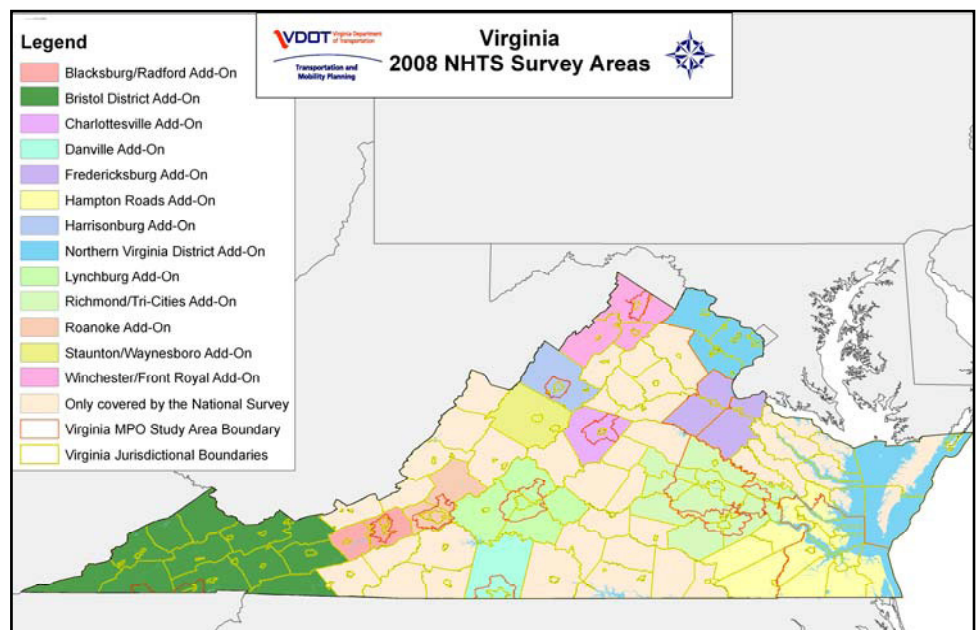
Ju-yin earned her undergraduate degree in marine resources at National Sun Yat-Sen University in Taiwan and continued there to earn a master's degree in marine biology. Her thesis studied the emergence synchronization of the marine midges' (a small 2-winged fly) one month life cycle with the ocean's tides. These insects only reach adulthood for about 2 to 3 hours and within this time; they must reproduce and lay their eggs at low tide so that water covers them, a difficult feat which, Ju-yin explains, may make them the best planners of all!

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The need for sound, reliable data on the travel of the American public could not be greater. We are facing issues of the "working retirement" of the first wave of baby boomers, continued congestion on our nations streets and highways, unmet mobility needs of older Americans, greater flexibility in working arrangements, a crisis in teen driving safety, and a host of other concerns.

The 1969, 1977, 1983, and 1990 survey efforts did not allow public agencies to Add-On to the national sample, but in the 1995 survey effort, this option was made available for the first time. This option became the NHTS Add-On program in 2001 and was greatly expanded with over 44,000 surveys conducted. For the current 2008 NHTS effort, the Add-On program has again significantly expanded with over 125,000 surveys planned in sixteen states. As a result, the 2008 NHTS effort has become the largest household travel survey ever conducted with about 150,000 total household surveys planned including the 25,000 surveys being conducted for the national sample.

**NEWS BRIEFS**

- VDOT is preparing for the peer review of the Statewide Modeling Program and Process, including the Virginia Transportation Modeling Policies and Procedures Manual, in summer 2008.
- VDOT will work with three universities, University of Virginia, Virginia Commonwealth University and Old Dominion University, in conducting supplemental surveys as an addition to Virginia's 2008 NHTS effort. It would help to understand travel behavior of college student group that is usually left out in traditional phone survey. The survey will begin in fall 2008.

Virginia is the 3rd largest Add-On for the 2008 NHTS effort with about 15,000 household surveys planned statewide. The Virginia effort focuses primarily on metropolitan planning organizations (MPOs) within Virginia, but will also do some rural sampling for statewide planning purposes. The survey data collected from this effort will provide planners across Virginia with a rich data source to support a variety of transportation planning applications. Data from this survey effort will be processed and geocoded in the spring/summer of 2009 and should be available for analysis by the fall of 2009.

For more information about NHTS, please visit:

- Official NHTS website: <http://nhts.ornl.gov/>
- FHWA's NHTS website: <http://www.fhwa.dot.gov/policy/ohpi/nhts/index.htm>
- NHTS FAQs website: <http://www.fhwa.dot.gov/policy/ohpi/nhts/nhtsspinfo.htm>

## Tighter Air Quality Standards May Create Some New Non-Attainment Areas in 2010

EPA announced that it is tightening the health related eight-hour ambient air standard for ozone to 0.075 ppm. Current data reportedly indicate that this may result in air quality transportation planning and conformity requirements being expanded to (newly) apply to localities in the Roanoke MPO urbanized area and to Caroline County (FAMPO area expansion). The final determinations of nonattainment or attainment with the revised standard are not expected until 2010, and will depend on air pollution monitored for 2007, and the upcoming 2008 and 2009 summer seasons.

## Census Data Updates

### 2010 Census Funding Threatened by Continuing Resolution

U.S. Census Bureau Director Louis Kincannon testified before Congress on how the Census Bureau's funding level under a continuing resolution through Nov. 16 is threatening critical preparations for the 2010 Census. Speaking for more than an hour before the House Oversight and Government Reform Subcommittee, Kincannon discussed the impact of the continuing resolution budget that funds most government activities at previous fiscal year levels. The Census Bureau is uniquely affected because its budget almost doubles this year as it ramps up for its 2008 Census Dress Rehearsal and other key 2010 Census operations and programs.

### First American Community Survey (ACS) Multiyear Data Product to be Released This Fall

The Census Bureau will begin an annual fall release of 3-year ACS tabulations starting in 2008 for the nation. These 3-year estimates will be based on data collected from 2005 - 2007 and will include geographic areas with populations of 20,000 or more.

In her undergraduate years, she earned an interdisciplinary certificate in Planning and the Environment and developed an interest in planning. This led her to decide to pursue further graduate study in the United States in urban planning, and she prepared for this while working full time: one year as a research assistant at her University specializing in statistics, and two years as a project assistant at the Taiwan Department of Agriculture's Fishery Agency doing research on the health of deep sea fisheries. (Fisheries are a vital part of the Taiwanese economy and culture.) After three years, she entered the graduate program at the University of Kansas and earned her master's degree in 2006. Ju-yin describes Kansas as being very different from Taiwan, not so much going on there, and a "good place to focus on your studies!"

Ju-yin joined the Virginia Department of Transportation (VDOT) Central Office's travel demand modeling group as a modeling systems analyst in 2006 and is a integral member of the modeling team responsible for the Charlottesville and Winchester travel demand models, the Virginia travel demand modeling Website and Teamsite. She also assists with several GIS and Traffic Database projects, and is one of the editors for VTM Connection. Ju-yin enjoys traveling and has been visited much of southeastern Asia, Europe, and the United States. She also enjoys movies and music and is an animal lover with a pet cat. Ju-yin lives in Richmond's West End.

## NEWS BRIEFS (continued)

- Virginia User's Group's (VTM) new website (<http://www.virginiadot.org/vtm/>) debuted on Feb 11, 2008! This website is meant to be a platform of disseminating information regarding travel demand modeling and Virginia modeling activity to the public and other modeling entities all around the world. Visitors may find self-study materials of travel demand modeling as well as model profiles of all the regional and statewide models in Virginia. Feel free to forward your comments and questions about this website to [vtm@vdot.virginia.gov](mailto:vtm@vdot.virginia.gov).



Starting in December, 2010, the Census Bureau will also begin annually releasing 5-year ACS tabulations. The first 5-year estimates will be released based on from data collected from 2005 - 2009 and will include the smallest of geographic areas - down to the tract and block group levels. This first 5-year data product will slightly precede the next Census Transportation Planning Products (CTPP) which is expected to be released in early 2011.

### Final Participant Statistical Areas Program (PSAP) Criteria Released for the 2010 Census

On March 14th, the Census Bureau released its final 2010 Census Participant Statistical Area Program (PSAP) criteria. The final criteria were changed significantly from what had originally been proposed on April 6, 2007 as a result of comments received from 32 agencies or individuals opposing the proposed 2010 criteria including the Virginia Department of Transportation (VDOT) and several Virginia MPOs. The final criteria set the 2010 minimum size threshold for Block Group population at the same 600 level used in the 2000 Census, down from the 1,200 level which had been proposed. The final criteria also allow states and localities to use households to delineate block groups for the first time. The final criteria set 240 as the alternative level for minimum block group household size.

The final criteria for block group size will enable states and MPOs to continue to have TAZ structures at the same level of detail as 2000, and perhaps finer if the Census Transportation Planning Products (CTPP) process does not link minimum TAZ size to minimum Block Group size. The 2000 and prior CTPPs did not link minimum TAZ size to minimum Block Group size. Early indications are that federal agencies will continue to allow sub-Block Group TAZs as they have in the past and final criteria concerning TAZ delineation are expected later this year. For more information, please visit the 2010 Census PSAP website at: <http://www.census.gov/geo/www/psap2010/psapcriteria.html>

### 2010 Transportation Analysis Zone Definition

Based on final Participant Statistical Area Program (PSAP) criteria released by the Census Bureau, it appears that Transportation Analysis Zone (TAZ) minimum size requirements will not be increased from that used in the past. More information on the 2010 TAZ definition process is expected to be released by FHWA and the Census Bureau later this year. Some changes in what constitutes an acceptable TAZ boundary are probable and 2010 Census Blocks and Block Groups will be a little different from those used in 2000 which will necessitate some changes.

The latest plans are still to have state departments of transportation and metropolitan planning organizations work cooperatively to develop three sets of TAZs: Small, Medium, and Large for all areas. The proposed Small TAZ size will be analogous to the traditional TAZ size used by most areas for metropolitan area planning in the past, and will likely not have a minimum population or household threshold. The proposed medium TAZ size will be analogous to a District level geography that has been used in some areas and will likely have a population threshold of 4,000. The proposed Large TAZ size will be new to most areas and will likely have a minimum population threshold of 20,000. The 2010 TAZ Definition process is still planned to start in January, 2009 and will likely last for at least six months. As a result, there is a good chance that TAZ definition will be both a FY-2009 and FY-2010 activity for VDOT and Virginia MPOs. Look for updates on the 2010 TAZ Definition process in the next edition of the VTM Connection.

## Highlights of Virginia Travel Demand Modeling Activities

No.	District/MPO Area	Contact(s)	Current/Recent News
1	Washington, DC	Bahram Jamei	MWCOG released its new version 2.2 on Mar 11th. The model includes forecast years for 2000, 2002, 2005, 2008, 2009, 2010, 2020, and 2030.
2	Hampton Roads	Jeremy Raw Andy Pickard	Model is being used for Air Quality Conformity. Current model is in phase 2 of a multi-year improvement effort.
3	Richmond/Tri-Cities	Jeremy Raw	Model is being used for Air Quality Conformity and for 2031 CLRP.
4	Fredericksburg	Nelson Newton	Model is being used for Air Quality Conformity and for 2035 CLRP.
5	Roanoke	Nelson Newton	Model is used as part of a Route 221 Corridor Study in Roanoke County.
6	Charlottesville	Juyin Chen	New model highway network built from TMPD centerline file was completed.
7	Danville	Jeasup Lee	Model is being prepared for upcoming CLRP. Land use data collection is scheduled for July to September 2008.
8	Winchester	Juyin Chen	Model is being prepared for CLRP.